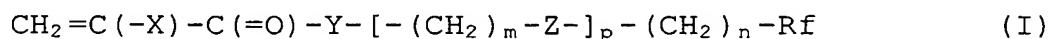


## CLAIMS

1. A surface treatment agent comprising (1) a fluorine-containing polymer and (2) water and/or an organic solvent, characterized in that the fluorine-containing polymer comprises repeating units derived from a fluorine-containing compound of the formula:



wherein X is a hydrogen atom or a methyl group;

Y is -O- or -NH-;

Z is -S- or -SO<sub>2</sub>-;

Rf is a fluoroalkyl group having 1 to 6 carbon atoms;

m is from 1 to 10, n is from 0 to 10, and p is 0 or 1.

2. The surface treatment agent according to claim 1, which is in the form of a solution, an emulsion or an aerosol.

3. A method of treating a substrate with the surface treatment agent according to claim 1.

4. The method according to claim 3, wherein the substrate is a textile, a masonry, a filter (for example, an electrostatic filter), a dust protective mask, a fuel cell, glass, paper, wood, leather, fur, asbestos, brick, cement, metal and oxide, ceramics, plastics, a coated surface or a

plaster.

5. A textile treated with the surface treatment agent according to claim 1.

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6. A carpet treated with the surface treatment agent according to claim 1.

7. A fluorine-containing compound (a) of the formula:

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$$\text{CH}_2=\text{C}(-\text{X})-\text{C}(=\text{O})-\text{Y}-[-(\text{CH}_2)_m-\text{Z}]_p-(\text{CH}_2)_n-\text{Rf} \quad (\text{I})$$

wherein X is a hydrogen atom or a methyl group;

Y is -O- or -NH-;

Z is -S-;

Rf is a fluoroalkyl group having 1 to 6 carbon atoms;

15 m is from 1 to 10, n is from 0 to 10, and p is 0 or 1;

provided that when p is 0, Y is -NH- and that when p is 1, Y is -O- and n is 0.

8. The fluorine-containing compound according to claim 7,  
20 wherein the carbon number of the fluoroalkyl group (Rf group) is from 1 to 4.

9. The fluorine-containing compound according to claim 7,  
wherein the fluoroalkyl group (Rf group) is a  
25 perfluoroalkyl group.

10. A fluorine-containing polymer comprising (A) repeating units derived from the fluorine-containing compound (a) according to claim 7.

5.

11. The fluorine-containing polymer according to claim 10, further having:

(B) repeating units derived from (b) a monomer free from a fluorine atom, and

10 (C) optionally, repeating units derived from (c) a crosslinkable monomer, in addition to the repeating units (A).

12. The fluorine-containing polymer according to claim 11, wherein the fluorine atom-free monomer (b) forming the repeating units (B) is acrylates of the general formula:



wherein  $A^1$  is a hydrogen atom or a methyl group, and

$A^2$  is a hydrocarbon group having 1 to 30 carbon atoms (particularly an alkyl group represented by  $\text{C}_n\text{H}_{2n+1}$  ( $n = 1$  to 30)).

13. The fluorine-containing polymer according to claim 11, wherein the crosslinkable monomer (c) forming the repeating units (C) is a fluorine-free monomer having at least two

reactive groups and/or carbon-carbon double bonds.

14. The fluorine-containing polymer according to claim 11,  
wherein the amount of the fluorine atom-free monomer (b) is  
5 0.1 to 50 parts by weight, and  
the amount of the crosslinkable monomer (c) is at most 20  
parts by weight,  
based on 100 parts by weight of the fluorine-containing  
compound (a).